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ABSTRACT

Factors affecting the return rate of a mailed questionnaire were investigated. A survey was mailed to 196 students who had dropped out of home study courses offered by a distance education university. The effects of personalizing the cover letter and of including anonymous pre-coded personal information on the questionnaire were studied in a 2 X 2 factorial design which also allowed for an interaction effect. Reminder cards were sent two weeks later. All questionnaires contained pre-coded personal data. There were four treatment conditions: (1) personal letter and no option to remove pre-coded personal data; (2) personal letter and option to remove data; (3) formal letter and no option to remove data; and (4) formal letter and option to remove data. Thirty-nine percent of the questionnaires were returned. Results showed no interactive effect between the kind of cover letter sent and whether or not subjects were given the option of tearing off the pre-coded personal data. In addition, respondents who were given the option to remove the pre-coded data did not exercise that option. There was no difference in the response rate according to the type of cover letter or whether or not pre-coded information could be removed. (GDC)

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THE COMBINED EFFECT OF PERSONALIZED APPEAL AND PRE-CODING OF PERSONAL DATA ON QUESTIONNAIRE RETURNS

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ABSTRACT

This study investigated the combined effect on return rates of personalizing the cover letter and including pre-coded personal information on a mail questionnaire. The 2 x 2 factorial design allowed for the testing of an interaction effect as well as for main effects as appropriate. In the event, there was no interactive effect between the kind of cover letter sent and whether or not subjects were given the option of removing the pre-coded data. In addition, neither of the main effects was significant. The finding that the inclusion of pre-coded personal data on a questionnaire does not impair return rates may be welcome news to investigators conducting studies in which they have prior knowledge of respondent characteristics.

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The Combined Effect of Personalized Appeal and Pre-Coding of Personal Data on Questionnaire Returns

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The Combined Effect of Personalized Appeal and Pre-Coding of Personal Data on Questionnaire Returns

Researchers and practitioners have long been aware of the substantial threat that response bias represents to survey studies using mail-out questionnaires. As a result, there has been much attention paid to ways and means of increasing the rates of response in such studies and to determining what factors in survey and instrument design might influence return rates and consequently the representativeness of response. The present study examines the combined effect on return rates of personalizing the cover letter and including pre-coded personal information on the questionnaire.

Effects of Personalization

Andreason (1970, p.273) has noted that many of the techniques used to stimulate response rate " . . . are in fact designed to personalize the communication between the researcher and the respondent. The (often unstated) assumption is that the more the respondent feels his unique answers to be important, the more likely he is to fill in and return the questionnaire." However, as Berdie and Anderson (1974, p.54) have pointed out, "Personalization may be accomplished in many ways. . . ." The most compelling, and perhaps the most obvious approach has been through a covering letter to the respondent.

A covering letter *per se* is generally regarded to be an essential adjunct to the questionnaire - perhaps to a point where a survey instrument should be considered to be both the questionnaire and the cover letter (see, for example, Berdie and Anderson, 1974, p.59). As they have observed, cover letters are necessary: (1) to inform the respondent about the nature of the study and how the data will be utilized; (2) to solicit the participation of

the respondent by pointing to tangible and intangible benefits of so doing; (3) to provide information about the investigator and/or sponsoring organization and about why the study is being conducted; and (4) to inform respondents about administrative matters such as how to return the questionnaire. However, following the sentiment expressed by Andreason, many researchers have investigated whether the effectiveness of a covering letter in stimulating response rate could be enhanced by personalizing it in some way.

Longworth (1953) reported that a personal note and typed letter increased returns by some five percentage points - a difference that might be regarded as suggestive but which is clearly not conclusive. Linsky (1965) systematically varied the "personalization of the cover letter through use of a handwritten personal salutation and signature" (p.183) with three other factors in a 2x2x2x2 factorial design. He found that none of the interactions were significant, but the main effect due to personalization (as defined by him) was significant. The return rate from the sample receiving a letter with personal salutation and signature was significantly better than the return rate from the sample receiving a letter with a mimeographed salutation and signature.

Simon (1967) conducted a series of three studies investigating the effect of sending personally typed versus form letters to elicit responses to mail questionnaires. He reported mixed results that he concluded " . . . indicate that personally typed cover letters have no clear-cut advantage over mimeographed form letters in terms of responses in surveys using mail questionnaires" (p.29). Furthermore, he speculated that a personally typed cover letter can inhibit response if the individuals being surveyed feel particularly vulnerable to violations of the anonymity of their responses.

Building on this premise, Andreason (1970) hypothesized that for a mail questionnaire study of New York State Lottery winners, "The greater the impersonality of the correspondence accompanying the mail questionnaire, the greater the rate of return of delivered questionnaires" (p.275). He operationally defined three levels of personalization: the least personal form used a general-purpose mimeographed salutation ("Dear Lottery Winner"); the next level of personalization was to address the individual through a handtyped salutation; the most personalized addressed the respondent individually and used a handwritten postscript enjoining the person to respond with what Champion and Sear (1969, p. 337) have characterized as an egoistic appeal. In addition, for the follow-up reminder letters that were sent out, one half were entirely mimeographed including the signature, and one half were entirely handwritten and handsigned. Andreason found no statistically significant differences in the return rates resulting from these various treatments. He concludes that " . . . the study supports Simon's finding that personalization is a variable with low potency for affecting response rate" (p.277). However, this conclusion notwithstanding, he still maintained that " . . . in some studies and for some respondents the expenditure will provide effects opposite to those desired" - that is, return rates may be lower.

Pre-Coding Personal Information

In a good many mail questionnaire studies, it is often desirable, if not essential, to have some background data on the respondents so that a more detailed analysis of the responses may be undertaken. Typical background data pertain to geographic location of the respondent, age, sex, socioeconomic status, marital status, and so on. In some instances, researchers may have such data on hand for the sample of interest prior to

sending out the questionnaires. In such cases, there are many advantages to pre-coding the respective background data on an individual on the questionnaire sent to him or her. For example: (1) response burden is lessened because it's not necessary to ask potential respondents for this information; (2) the accuracy and "believability" of such information is enhanced because the data sets will be complete and there will be no confounding effect due to individual interpretation of questions nor to variations in individuals' abilities to recall the information requested; (3) prior knowledge of such information facilitates a categorization of data that is more meaningful and better reflects the range of responses; (4) the administrative burden associated with accommodating such data through pre-coding is appreciably less than the burden of similarly handling it after the questionnaires are returned; and (5) the ethical issues of anonymity and confidentiality must be dealt with directly and in an "up-front" manner.

The question does arise, however, as to what effect the inclusion of pre-coded personal information on a questionnaire could have on the way in which people may respond. Perhaps because this kind of situation does not arise often, there has been little of relevance written about it. There does seem to be a consensus (see, for example, Berdie and Anderson, 1974) that when pre-coded information is included on a questionnaire, respondents should be told what it is, and they should be reassured that their responses will indeed remain anonymous if that guarantee has been offered to them.

Champion and Sear (1969) included pre-coded personal information on the questionnaires they used in their "methodological analysis" of questionnaire response rate. However, they side-stepped the issue of how that might have affected response rate by recording the pre-coded data on each questionnaire using "a special evanescent ink solution." Consequently, respondents had no

reason to assume that their anonymity was more apparent than real. Such an approach, however, raises the particularly difficult issue of the ethics of misinforming, or at least not fully disclosing to human participants in a research study as to just what the nature of the implied "contract" between them and the researcher is.

Methods

A mail-out questionnaire survey of 196 students dropping out of courses offered by a distance education university provided the opportunity to conduct the study reported here. The survey was an attempt to determine why the students had dropped out of the home study course they had enrolled in.

In this study, the cover letter accompanying the questionnaire was personalized by making it "friendly" as compared to making it "formal." Specifically, the two versions of the covering letter differed in the following ways:

"Personalized" Version	"Formal" Version
. Indented style format.	. Block style format.
. Predominant use of active verbs.	. Predominant use of passive verbs.
. Predominant use of first and second person	. Predominant use of third person.
. Informal, grammatically loose words and constructions (e.g. use of a postscript; short sentences; lower level of reading difficulty).	. More formal, grammatically precise words and constructions (e.g. use of conjunctives such as "moreover," "namely").
. Appeal was more personal, direct and friendly.	. Appeal was more impersonal, indirect and pedantic.
. Letter was signed with full handwritten first and last name of researcher.	. Letter was signed with handwritten initials only of given names and full last name.

Although stated in a form that differed according to these aforementioned dimensions, the content and directions given in the two types of letters were essentially the same. The letters were written by an experienced editor who was fully involved in the study and who understood the nature and purposes of the experimental conditions.

The University's student record system was used to identify the group of students dropping out and to generate mailing labels. The data in this system came from application forms filled in by students and consequently the records contain a substantial amount of background information on each student as well as information pertaining to courses taken and academic performance. Specific elements of interest were abstracted from the record of each student in the sample and were printed on the same kind of adhesive label that was used for the mailing information. Rather than ask students to provide this information again and risk incomplete and/or inaccurate responses, the labels were stuck onto the end of the questionnaire at the same time that the questionnaire was being prepared for mailing. This ensured that each individual received the appropriate questionnaire. One half the questionnaires simply explained what the coded data were for and reassured the individual that these data would in no way compromise the anonymity of his/her response. The other half of the questionnaire similarly explained and reassured. However, in this case the label was mounted on a tear-away portion of the questionnaire and the student was informed that he or she could remove the coded information from the questionnaire if they were at all concerned that it would compromise their anonymity. It was presumed that providing subjects with this option would reinforce the effect of the assurance of anonymity.

It may be worth emphasizing that responses were indeed <u>anonymous</u> (as opposed to being just confidential). The questionnaires were not numbered or labelled in any way such that any individual's responses could be identified.

In all other respects, the questionnaires were identical, and the individuals in the sample were treated in the same way. They all received identical reminder cards containing offset printed text and handwritten

signature. All material was sent out with metered postage. A self-addressed envelope, also with metered postage, was enclosed with each questionnaire sent out. The reminder card was mailed to all individuals in the sample (since it couldn't be ascertained who had already responded and who hadn't) two weeks after the questionnaire was sent. As has been found in other studies, the mail-out of the reminder card was followed by an appreciable number of questionnaire returns. There was no significant difference in response to the reminder card among the treatment conditions.

All respondents were offered a copy of the findings of the study partly as an indication of the sincerity of the researcher and partly to offer them some return for their effort. Requests were to have been made on a mail-in card that could be returned separate from the questionnaire. A very small number of students requested a copy of findings of the study.

A Mea Culpa

It should be acknowledged that a stronger test of whether the inclusion of pre-coded personal information affects response rate would have been to include a test group whose questionnaires did not include such information. However, it was felt that the value of the survey as an inquiry into why students discontinue university level home study would have been impaired had the study followed this design. Background data would have been available for some students and not for others, and the investigator would have been faced with the considerable challenge of reconciling two sets of data - as well as having to account to the consumers of the study results why important data was available for some respondents but not others.

Data

Students were randomly assigned to the two conditions of cover letter and to the two conditions pertaining to the inclusion of pre-coded personal data, resulting in four combinations; personal letter and no option to remove pre-coded personal data; personal letter and option to remove pre-coded personal data; formal letter and no option to remove personal pre-coded data; and formal letter and option to remove personal pre-coded data. There were 49 subjects in each of these 4 possible treatment conditions.

There were 77 responses in total, which translates to a return rate of 39.3 percent. The returns were distributed as indicated in Table I.

TABLE I
DISTRIBUTION OF QUESTIONNAIRE RESPONSES
BY TREATMENT CONDITION

	PERSONALIZED LETTER	FORMAL LETTER	SUBTOTALS
Option to remove personal information	21	14	35
No option to remove personal information	18	24	42
Subtotals	39	38	N=77

The return rate of 39.3 percent is almost certainly artificially depressed. Studies of student dropout from university correspondence study indicate that appreciable numbers of students "disappear" shortly after enrolling and can't be contacted. Presumably questionnaires mailed to these people would similarly fail to make contact. Consequently, the number of deliverable questionnaires could have been substantially fewer than 196. However, in the absence of any hard evidence as to what this number really is, the full sample was taken to be 196. It was further assumed that the

number of questionnaires failing "to make contact" in each of the four treatment groups would be the same - thereby randomly distributing the effect of this spurious condition such that it could be assumed not to seriously affect inter-treatment group comparison.

Results and Conclusions

Previous studies by Linsky (1965) and Childers and Ferrell (1979) have demonstrated the value of using factorial designs to study factors thought to affect response rates. The often contradictory results obtained in studies of questionnaire methodology strongly suggest that various factors may work in combination to produce effects that would otherwise be absent if the factors were studies in isolation from one another. The studies conducted by Simon (1967) and Andreason (1970) are good examples of this.

In the present study, it seemed reasonable to assume that if students were embarrassed about dropping out of their home study courses, or if they felt themselves to be failures, or if they were highly critical of the University, then they might feel particularly threatened if it appeared that the anonymity of their responses might be compromised. If this were so, then like Simon's and Andreason's studies, the personal style of cover letter and the inclusion of pre-coded information with no option for removing it should be associated with a lower return rate. It was also possible, of course, that the individuals receiving questionnaires with the tear-off option would choose to exercise that option but would still return a completed questionnaire. In the event, only one person out of the 35 respondents in that treatment condition group chose to do so.

A chi-squared test was applied to the 2x2 contingency table given above. The chi-squared test in this context was intended to be a test of

the degree of association between the two factors. A significant result would be taken as evidence of an interactive effect between the factors. A nonsignificant result would indicate that the factors were independent, and consequently interpreted as indicating no interaction effect. The obtained chi-squared value in this test was 1.608, which is not significant at the 0.05 level.

Because the hypothesis of an interactive effect may be rejected, the question arises as to whether the main effects are significant. Chi-squared tests of the appropriate contingency tables (Tables II and III) indicate that neither of the two main effects was significant.

TABLE II
CHI-SQUARE TEST FOR EFFECT OF LETTER TYPE

	PERSONALIZED LETTER	FORMAL LETTER	SUBTOTALS
Response	39	38	77
No response	59	60	119
Subtotals	98	98	196

Calculated ψ^2 = .021 Critical ψ^2 (D=1, α=.05) = 3.84

TABLE III
CHI-SQUARE TEST FOR EFFECT OF OPTION
OR NO OPTION TO REMOVE PERSONAL INFORMATION

	OPTION TO REMOVE PERSONAL INFORMATION	NO OPTION TO REMOVE PERSONAL INFORMATION	SUBTOTALS
Response	35	42	77
No response	63	56	119
Subtotals	98	98	196

Calculated ψ^2 = 1.048 Critical ψ^2 (D=1, α=.05) = 3.84

With respect to return rate, the results of this study indicate:

1. There was no interactive effect between the kind of cover letter sent and whether or not subjects were given the option of removing the pre-coded personal data. Subjects were equally likely to respond whatever the combination of cover letter and whether or not they could remove the pre-coded data.

2. Of those who responded, subjects receiving questionnaires with the option to tear off the pre-coded personal information did not exercise that option.

3. There is no difference in the response rate according to whether an individual received a friendly cover letter or a formal cover letter.

4. There is no difference in the response rate according to whether an individual was offered or was not offered the option of removing the pre-coded personal information on the questionnaire.

Discussion

The results from this study are congruent with the results reported by Simon (1967) and Andreason (1970). However, unlike these two studies, there is not even a "suggestive" indication in the present study that a personalized letter is more effective in eliciting a response than is a formal letter.

The finding that including pre-coded personal data on a questionnaire does not impair return rates may be welcome news to investigators conducting studies in which they have prior knowledge of respondent characteristics. As mentioned previously, such a procedure facilitates the aggregation and processing of essential background information, while at the same time ensuring that it is accurate. Moreover, affixing such information before the questionnaire is sent to an individual - rather than afterward - has many advantages. Adding such information after the questionnaire has been sent out, requires that each questionnaire be uniquely identified. This means that extra bookkeeping would be required to ensure that a particular

individual's questionnaire is properly matched with the background data for that person. Moreover, there would be the problem of how to reconcile to the respondent the apparent discrepancy between identifying his/her response and the researcher's promise of confidentiality/anonymity. The approach described in this paper avoids these complications altogether.

Finally, as indicated earlier, the return rate was only 39.3 percent. Unfortunately, some of the same motivational factors that lead to students' discontinuing distance study may also disincline them not to respond to a survey. The low return is particularly problematic with respect to the objective of the survey - namely, to attempt to find out why students were dropping out of courses. However, the study reported here pertains simply to the experimental conditions under which the study was conducted - with no direct reference to the substance of the survey. There is no question but that a higher response rate is always better, no matter which point of view is taken. However, it is not clear how serious a matter a lower response rate is in respect of testing the effects of various treatment conditions on rates of return. If one assumes that the "non-response" effect is randomly distributed across treatment conditions, then a low overall response rate (within reasonable limits) may not be so serious. However, if one has grounds for arguing that there could be an interactive effect between certain of the treatment effects and non-response, then there could clearly be a problem. This is generally a problem with surveys in which the return rates are "low" - and not just a problem particular to the study reported here.

REFERENCES

Andreason, Alan R. "Personalizing Mail Questionnaire Correspondence." Public Opinion Quarterly; 34(2); 1970, pp.273-277.

Berdie, Douglas R. and Anderson, John F. Questionnaires: Design and Use. The Scarecrow Press, Inc. Metuchen, New Jersey, 1974.

Champion, Dean and Sear, Alan. "Questionnaire Response Rate: A Methodological Analysis." Social Forces, 47(3), 1969, pp.335-339.

Childers, Terry L. and Ferrel, O. C. "Response Rates and Perceived Questionnaire Length in Mail Surveys." Journal of Marketing Research, Vol. XVI, 1979, pp.429-431.

Linsky, Arnold S. "A Factorial Experiment in Inducing Responses to a Mail Questionnaire." Sociology and Social Research, 49(2), 1965, pp.183-189.

Longworth, Donald S. "Use of a Mail Questionnaire." American Sociological Review, Vol. 18, 1953, pp.310-313.

Nichols, Robert C. and Meyer, Mary Alice. "Timing Postcard Follow-Ups in Mail Questionnaire Surveys." Public Opinion Quarterly, Vol. 30, 1966-67, pp.637-646.

Simon, Raymond. "Responses to Personal and Form Letters in Mail Surveys." Journal of Advertising Research, 7(1), 1967, pp.28-30.

Sletto, Raymond, F. "Pretesting of Questionnaires." American Sociological Review, 5(2), 1940, pp.193-200.

Slocum, W. L., Empey, L. T., and Swanson, H. S. "Increasing Response to Questionnaires and Structured Interviews." American Sociological Review, 21(2), 1956, pp.221-225.